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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,008

09/08/2005

Reiner Kober

0690-0122PUS1

1751

2292 7590 03/20/2008
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EXAMINER

HOLT, ANDRIAE M

ART UNIT

PAPER NUMBER

1616

NOTIFICATION DATE

DELIVERY MODE

03/20/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.		Applicant(s)	
	10/525,008		KOBER ET AL.	
	Examiner		Art Unit	
	ANDRIAE M. HOLT		1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/17/2005 and 7/5/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-21 are pending in the application.

Election/Restrictions

Applicant's election with traverse of group I in the reply filed on December 26, 2007 is acknowledged. The traversal is on the ground(s) that Sauter '326 (US 5,260,326) describes salts of a triazole active ingredient which may be prepared by reacting the triazole with an acid such as acetic acid and glycolic acid to form the triazole salt and that the carboxylic acid is not used as a solvent. This is not found persuasive because Sauter '326 teaches in col. 2, lines 58-68, that the salts of the azole active ingredients are reacted with propionic acid, glycolic acid, lactic acid and acetic acid. In response to applicant's argument, independent claim 1 simply recites a composition comprising at least one active ingredient selected from among the triazole class, at least one carboxylic acid and water. This combination is known in the art as evidenced by Sauter '326; the triazole component is mixed with the carboxylic acid in solution even if it is to form a salt.

Applicant's election of species with traverse of (a) propionic acid, (b) metconazole, (c) R1 and R2 together denote a radical $-(CH_2)_5-$ and X is an anionic group (d) N,N-dimethylpiperinium salt of formula (IIIb) wherein X⁻ is Cl⁻ (mepiquat chloride) and (e) alkylglycosides is acknowledged. The traversal is on the grounds that the scope of formula (I), as well as formula (III) in claim 11, is relatively small, such that there is no significant burden placed on the examiner to examine the full scope of the present claims. This is not found persuasive because the triazole class referenced in

claim 1 covers a wide variety of compounds that would react different in the formulation and that would entail an intensive search of all the compounds in the class.

The requirement is still deemed proper and is therefore made FINAL.

Claims 22-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on December 26, 2007.

Claims 1-26 are pending in the application. Claims 22-26 are withdrawn from consideration. Claims 1-21 will be examined on the merits.

Priority

Priority to PCT/EP03/08837 filed on August 8, 2003, which claims priority to European Patent Application No. 10237885.1 filed on August 19, 2002 is acknowledged.

Information Disclosure Statement

Receipt of Information Disclosure Statements filed on February 17, 2005 and July 5, 2005 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 recites the limitation "(a2) at least one active ingredient of the formula III" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Claim 11 is dependent on claim 1, which has no statement of (a2). In order to overcome the rejection, Claim 11 can be rewritten to recite "a composition as claimed in claim 1, further comprising at least one active ingredient of the formula (III).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 5-10, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Valcke et al. (US 5,714,507).

Valcke et al. teach synergistic fungicidal compositions containing a fungicidal triazole and metconazole for treating plants or the loci thereof, or for use in wood-preservation or protection of biodegradable materials (Abstract). Valcke et al. teach water-dilutable homogenous concentrates in particular comprise by weight: 0.25 to 15% , in particular 1 to 10% triazoles (triazole class(a1), weight %, instant invention), 0.5% to 30%, in particular 5 to 15% surfactant (s) (surface active agents, weight %, instant invention) and 0 to 40% carboxylic acid(s) (carboxylic acid (b), weight %, instant invention) (col. 10, lines 14-24). Valcke et al. further teach the said water-dilutable wood-preserving liquids have the advantage that almost instantaneously homogeneous

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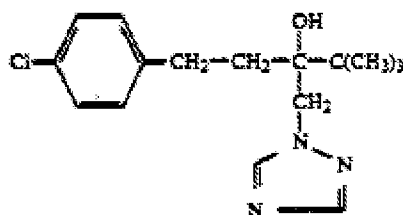
or quasi homogeneous solutions are formed by mixing these liquids with predominantly aqueous media (col. 10, lines 25-28) (liquid composition and homogeneous, instant invention). Valcke et al. further teach that these solutions have an extremely high physical stability, not only at ambient temperatures, but also at decreased temperatures (col. 10, lines 28-31). Valcke et al. teach in col. 16, example 7, Composition Examples (Wood Protection), composition A comprising metconazole 3% and propiconazole 1% (triazole class active ingredient, metconazole, instant invention), propionic acid 6% (carboxylic acid, propionic acid, instant invention) and water 19% (water, instant invention). Composition A has the molar ratio of component (b) to component (a1) being greater than 1, wherein component (a1) amounts to more than 1% by weight and component (d) to more than 10% by weight of the total weight of the composition. Valcke et al. teach that apart from both the aforementioned active ingredients of formula (I) and (II), the compositions according to the invention may further contain other active ingredients such as plant growth regulators (col. 11, lines 5-10). Valcke et al. further teach quaternary ammonium compounds such as benzyldimethyltetradecyl ammonium chloride can be used in the composition (col. 11, lines 59-50). Valcke et al. teach that the synergistic mixtures according to the present invention possess advantageous curative, preventive and systemic fungicidal activity to protect plants, in particular culture plants (col. 3, lines 30-33). Valcke et al. teach that the formulations, the compositions, preparations, or mixtures containing the active ingredients are prepared following art-known procedures by homogeneously mixing and/or grinding the active ingredients with surface-active compounds (surfactants) (col. 5, lines 58-64). Valcke et

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al. further teach suitable surface-active compounds to be used in the composition are non-ionic, cationic and/or anionic surfactants (col. 6, lines 45-46). Valcke et al. teach more frequently, however, so-called synthetic surfactants are used, especially fatty sulfonates, fatty sulfates(alkyl sulfates, instant invention) or alkylaryl-sulfonates (col. 6, lines 60-63) (alkylsulfonates, instant invention). Valcke et al. further teach that cationic surfactants are preferably quaternary ammonium salts (col. 7, lines 37-38) (quaternized ammonium salts, instant invention).

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Horstmann et al. (US 5,206,225).

Horstmann et al. disclose in the preparation examples, col. 10, lines 25-62, example 1, for the preparation of a formulation of 25.4 parts by weight of 1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazole-1-yl-methyl)-pentan-3-ol of formula



(IIa) (triazole class (a1), instant invention)

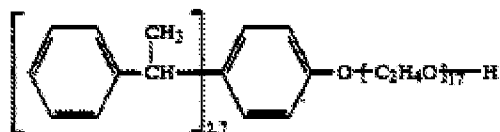
49.1 parts by weight of a mixture of an average

5% hexanecarboxylic acid dimethylamide, (carboxylic acid (b), instant invention)

50% octanecarboxylic acid dimethylamide,

40% decanecarboxylic acid dimethylamide

5% dodecanecarboxylic acid dimethylamide,



5.0 parts by weight N-methyl-pyrrolidone and 0.5 parts by weight of water (water, (d), instant invention are mixed at room temperature and stirred to give a homogenous liquid (homogenous liquid, instant invention). Horstmann et al. disclose that by mixing with water, spray liquor is prepared from the concentrate thus obtained in which the concentrate is present in a concentration of 0.5% by weight. Horstmann et al. disclose that the compositions are used for prevention of crystallization of active compounds of formula (II) to (V).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

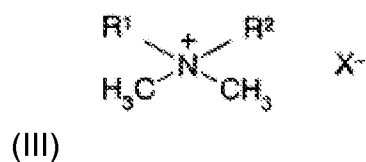
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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11-12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Valcke et al. (US 5,714,507) in view of Wu et al. (CN 1,296,745) (Abstract).

Applicant's Invention

Applicant claims a composition comprising a1) at least one active ingredient selected from among the triazole class, b) at least one straight-chain or branched saturated or unsaturated aliphatic carboxylic acid and d) water. Applicant further claims a composition further comprising a2) at least one active ingredient of the formula



Determination of the scope of the content of the prior art (MPEP 2141.01)

The teachings of Valcke et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

Valcke et al. do not teach the composition of claim 1 comprising the specific active ingredient of formula III. It is for this reason Wu et al. is joined.

Wu et al. teach a disinfecting plant regulator for preventing and eliminating diseases of wheat, such as powdery mildew, rust, sheath and culm blight, is prepared from uniconazole, mepiquat chloride, (claims 11-12, compounds of formula III, a22, instant invention), etc. Wu et al. teach that it can be used to increase chlorophyll, develop root system, make straw strong and raise the resistance to warm winter, drought and wind. Wu et al. teach that its advantages are high effect, low toxicity and residue and low cost. Wu et al. further teach that it is also suitable for other crops including rice, corn, etc. (Abstract).

**Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Valcke et al. and Wu et al. to produce an effective fungicidal composition. Valcke et al. teach it is within the skill of one skilled in the art to produce synergistic fungicidal compositions comprising at least one triazole active, a carboxylic acid and water. Valcke et al. also teach that plant growth regulators can be added to the compositions. Wu et al. teach it is within the skill of one skilled in the art to combine a triazole fungicide with mepiquat chloride to produce a composition that

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increases chlorophyll and develops root systems. One skilled in the art would have been motivated to make this combination in order to receive the expected benefit of a fungicidal composition that effectively eradicates the fungal species harmful to plants and that also enhances the growth potential, i.e., increased chlorophyll and stronger root systems, of the plant being treated with the composition. Given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to produce an effective fungicidal composition with enhanced capabilities to protect plants/crops from harmful fungi, therefore increasing the yield of the crops and increasing profits to the crop owners.

Claims 17-18 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Valcke et al. (US 5,714,507) in view of Cutler et al. (6,117,820).

Applicant's Invention

Applicant claims a composition comprising a1) at least one active ingredient selected from among the triazole class, b) at least one straight-chain or branched saturated or unsaturated aliphatic carboxylic acid and d) water. Applicant further claims a composition further comprising a surface active adjuvant selected from c1) alkylglycosides.

Determination of the scope of the content of the prior art (MPEP 2141.01)

The teachings of Valcke et al. are incorporated herein by reference and are therefore applied in the instant rejection as discussed above.

**Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)**

Valcke et al. do not teach the composition of claim 1 comprising the specific surface active adjuvant, alkylglycosides. It is for this reason Cutler et al. is joined.

Cutler et al. teach an aqueous agrochemical concentrate formulation comprising a) an agrochemical electrolyte, b) and alkoxyated adjuvant, c) an alkylglycoside (claim 17-18, alkylglycoside, instant invention) and d) a co-surfactant which interacts with the alkylglycoside to form a structured aqueous system (col. 1, lines 62-67-col. 2, lines 1-2). Cutler et al. teach that it is believed that the present invention provides a structured aqueous system, even in the presence of a second dispersed phase, such that a substantially homogeneous dispersion gives a uniform concentration in respect of all the components within the formulation (col. 2, lines 18-23).

**Finding of prima facie obviousness
Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Valcke et al. and Cutler et al. to produce an effective fungicidal composition. Valcke et al. teach it is within the purview of one skilled in the art to produce synergistic fungicidal compositions comprising at least one triazole active, a carboxylic acid, water, and surfactants. Valcke et al. also teach that surfactants (surface active compounds) are used in the composition at 0.5 to 30 % by weight. Cutler et al. teach it is within the purview of one skilled in the art to use alkylglycosides as surfactants in agrochemical formulations. One skilled in the art would have been

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motivated to substitute or use alkylglycoside surface active agents in conjunction with the other surface active agents in the formulation in order to receive the expected benefit of a fungicidal composition that effectively eradicates the fungal species harmful to plants and that will create a composition that has a uniform concentration in respect of all the components within the formulation. Given the state of the art as evidenced by the teachings of the cited references, and absent any evidence to the contrary, there would have been a reasonable expectation of success in combining the teachings of the cited references to produce an effective fungicidal composition with enhanced capabilities to protect plants/crops from harmful fungi, therefore increasing the yield of the crops and increasing profits to the crop owners.

None of the claims are allowed.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is 571-272-9328. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Andriae M. Holt
Patent Examiner
Art Unit 1616

/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616